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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,825	05/24/2001	Paul V. Werme	NC 83017	2372

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EXAMINER	
TANG, KENNETH	

ART UNIT	PAPER NUMBER
2195	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/864,825	WERME ET AL.	
	Examiner	Art Unit	
	Kenneth Tang	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *26-35* is/are allowed.

6)☒ Claim(s) *1-20,22-25 and 36* is/are rejected.

7)☒ Claim(s) *21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the Amendment filed on 5/25/05. Applicant's arguments have been fully considered but are moot in view of the new grounds of rejections.

2. Claims 1-36 are presented for examination.

Specification

3. The abstract of the disclosure is objected to because "reseource" is misspelled on line 1. Correction is required. See MPEP § 608.01(b).

Claim Objections

4. Claim 36 is objected to because of the following informalities: "inter dependencies" should be amended to "inter-dependencies". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 36 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In claim 36, lines 4-6, "determining whether and where additional application computer programs should to be one of.." does not make any sense because it is grammatically incorrect and therefore, indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-3, 6-9, 12, and 14-15 are rejected under 35 U.S.C. 102(b) as being unpatentable over Du et al. (hereinafter Du) (US 6,041,306).**

7. As to claim 1, Du teaches in a distributed environment comprised of hosts *(network node 12a, etc.)* instantiating copies *(creating instances)* of an application computer program *(col. 2, lines 59-65, col. 5, lines 59-67 through col. 6, lines 1-10)*, a resource management device within one of the hosts of the distributed environment *(see Fig. 2)*, the resource management device generating signals which start up *(started or restart)*, shutdown *(stopped)* or move *(controlled or data exchange or communication, etc.) (col. 5, lines 59-67, col. 1, line 49)* a selected one of the copies *(instance)* responsive to first information received by the resource management device regarding performance *(monitor and measure progress of the process instances created) (col. 8, lines 3-6, col. 10, lines 1-4)* of one or more copies *(instances)* of the application computer program *(col. 2, lines 59-65, col. 5, lines 59-67 through col. 6, lines 1-10)* and second information received by the resource management device regarding performance of the hosts *(system monitoring and network communication, etc.) (col. 2, lines 7-10)*. The central processing unit (CPU) of the computer 12a generates the signals or "firing" *(col. 7, line 20, etc.)*.

8. As to claim 2, Du teaches on a host instantiating a managed characteristic computer program *(attribute, state, instances) (col. 2, lines 59-65, col. 5, lines 59-67 through col. 6, lines 1-10)*, the managed characteristic application computer program *(col. 2, lines 59-65, col. 5, lines 59-67 through col. 6, lines 1-10)* being managed by at least the host, a resource management device of the host, the resource management device *(see Fig. 2)* generating signals responsive to first information received by the resource management device regarding performance *(monitor and measure progress of the process instances created) (col. 8, lines 3-6, col. 10, lines 1-4)* of a plurality of application computer programs including the managed characteristic application computer program and second information received by the resource management device regarding performance of the host *(system monitoring and network communication, etc.) (col. 2, lines 7-10)*, the signals including:

a first signal that starts up an additional copy (instance) of the managed characteristic (attribute or state) application computer program on one of the host and a second networked host (database, etc) *(col. Fig. 2, 21, 34a, or 34b, etc.)*;

a second signal shuts down *(stopped)* and restarts (restart or reset) *(col. 7, lines 17-24, 56-57)* the managed characteristic on the host; and

a third signal that moves the managed characteristic to the second host (database, etc.) *(col. Fig. 2, 12a, 20, 23b, 26, 27, 21, 34a, or 34b, etc.)*.

9. As to claim 3, Du teaches wherein the managed characteristic application computer program comprises a scalable application program *(col. 5, lines 16-34)*.

10. As to claim 6, Du teaches the resource management device wherein the managed characteristic application computer program further responds to user-initiated control actions *(users respond and interactive through the user interface, see Fig. 3, etc.)*.

11. As to claim 7, Du teaches the resource management device wherein the resource arrangement device generates signals instructing a program control device to modify the configuration of the managed characteristic application computer program *(configuration management) (col. 10, lines 5-27, etc)*.

12. As to claim 8, it is rejected for the same reasons as stated in the rejection of claim 2. An M+1 copy is taught in Du where it is disclosed that there is scalability *(col. 5, lines 16-34, etc)*. If something is scalable, it can do the same for an extra/additional or an M+1 amount, etc. Un addition, Du teaches configuration management by of one of the hosts *(col. 10, lines 5-28)*.

13. As to claim 9, it is rejected for the same reasons as stated in the rejection of claim 3.

14. As to claim 12, Du teaches the resource management device wherein the resource management device further generates signals responsive to third information received by the resource management device regarding the performance of hardware operatively coupling the networked hosts *(col. 8, lines 3-6, col. 10, lines 1-4,col. 2, lines 7-10)*.

15. As to claims 14, it is rejected for the same reasons as stated in the rejection of claims 6, respectively.

16. As to claim 15, Du teaches where the action requests are generated by an operator *(col. 4, lines 9-33)*.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. Claims 4-5, 10-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Du et al. (hereinafter Du) (US 6,041,306), and further in view of Chiu et al. (hereinafter Chiu) (US 6,654,029 B1).

18. As to claims 4-5, Du teaches the resource management device wherein the managed characteristic application computer program comprises a fault tolerant application *(col. 4, lines 58-67, col. 7, lines 55-62)*. Du fails to explicitly teach where the degree of fault tolerance is selectable by a user by priority. However, Chiu teaches a scalable, object-oriented architecture with a user selecting the priority (importance) level of fault tolerance *(col. 5, lines 20-25)*. It

would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Du and Chiu because the user could react based on importance *(col. 5, lines 20-25)*.

19. As to claims 10-11 and 13, they are rejected for the same reasons as stated in the rejection of claims 4-5, respectively.

20. **Claims 16-20 and 22, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Du et al. (hereinafter Du) (US 6,041,306), and further in view of Dimitroff et al. (hereinafter Dimitroff) (US 6,742,020 B1).**

As to claim 16, it is rejected for the same reasons as stated in the rejection of claim 8. In addition, Du teaches using managers and state machines that contains states of every condition and determines the state and health based on the conditions automatically *(col. 6, lines 65-67 through col. 7, lines 1-15 and col. 12, lines 31-47 and col. 10, line 3.* In addition, Du teaches using QoS requirements for the applications *(col. 11, lines 16-18)* and shutting down, restarting and moving managed characteristic application programs (see rejection of claim 2). Du fail to explicitly teach that the computer programs are moved, shutdown and started in accordance with satisfaction of the QoS requirements. However, Dimitroff teaches using (opening, closing, moving, etc.) application programs in accordance to satisfaction of QoS requirements *(col. 4, lines 7-18)*. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to include the feature of the computer programs are moved, shutdown and started in accordance with satisfaction of the QoS requirements to the existing networking system with QoS requirements of Du because ensuring that QOS requirements are met insofar as possible is desirable *(col.1, lines 57-65)*.

21. As to claim 17, Du teaches the software wherein the first function receives system specification information comprising selected ones of host configuration and capabilities, application capabilities, survivability requirements, scalability characteristics, application startup and shutdown dependencies, and application and path performance requirements *(col. 10, lines 5-28, col. 1, lines 56-67, col. 8, lines 53-56, col. 5, lines 48-67, col. 7, lines 17-24, 56-57, etc.)*.

22. As to claim 18, Du teaches wherein the first function receives program control information comprising application status and detected application faults for each of the M managed characteristic application computer programs, and detected failures regarding the N hosts *(col. 15, lines 3-5, col. 16, lines 33-52)*.

23. As to claim 19, Du teaches wherein the first function receives application performance data representing each of the M managed characteristic application computer programs *(col. 1, liens 56-67, col. 8, lines 53-56, col. 5, lines 48-67, etc.)*.

24. As to claim 20, Du teaches wherein the first function receives application performance data on one or more applications instantiated by the N hosts including performance data

representing each one of the M managed characteristic application computer programs *(col. 1, liens 56-67, col. 8, lines 53-56, col. 5, lines 48-67, etc.)*.

25. As to claim 22, Du teaches the resource management device wherein the managed characteristic application computer programs comprises a scalable application *(col. 5, line 34, etc.)*.

26. As to claim 25, Du teaches wherein the M managed characteristic application computer programs comprise M copies of a single managed characteristic application computer program *(col. 2, lines 59-65, col. 5, lines 59-67 through col. 6, lines 1-10)*.

27. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Du et al. (hereinafter Du) (US 6,041,306), and further in view of Dimitroff et al. (hereinafter Dimitroff) (US 6,742,020 B1), and further in view of Chiu et al. (hereinafter Chiu) (US 6,654,029 B1).

28. As to claims 23-24, Du teaches the resource management device wherein the managed characteristic application computer program comprises a fault tolerant application *(col. 4, lines 58-67, col. 7, lines 55-62)*. Du and Dimitroff fail to explicitly teach where the degree of fault tolerance is selectable by a user by priority. However, Chiu teaches a scalable, object-oriented architecture with a user selecting the priority (importance) level of fault tolerance *(col. 5, lines*

20-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Du, Dimitroff, and Chiu because the user could react based on importance *(col. 5, lines 20-25)*.

Allowable Subject Matter

29. Claims 26-35 are allowed.

30. Claim 36 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

31. Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

32. Applicant's arguments have been fully considered but are moot in view of the new grounds of rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/11/05
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